UBS Grass Roots Chemical Conference

Opportunities for Growth in North America

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Forward Looking Statements

The forward-looking statements contained in this announcement concerning demand for products and services, the expected macroeconomic environment, sales, margins, earnings growth rates, and other financial goals involve risks and uncertainties, and are subject to change based on various factors. These include the impact of changes in worldwide and national economies, the cost and availability of electric power, natural gas and other materials, development of operational efficiencies, changes in foreign currencies, changes in interest rates, the continued timely development and acceptance of new products and processes, the impact of competitive products and pricing, the impact of tax, accounting and other legislation, litigation, government regulation and the effectiveness and speed of integrating new acquisitions into the business.
Praxair Snapshot

- 87% industrial gases, 13% other businesses
- Strong positions in key geographies
- Robust business model
  > Long term contracts
  > Take or pays
  > Site requirements contracts
- Broad customer base
- Providing key solutions to customers at small fraction of cost stack
North American Industrial Gases (NAIG)

2004 Sales

**Praxair, Inc.**
$6.6 B

North America Segment
$4.2 B

North America: 61%

Other*: 49%

NAIG: Onsite & Liquid: 51%

*Includes packaged gas, Mexico, other
Operating Model

♦ Optimize growth opportunities
  • Hydrogen for refineries
  • Oil & gas drilling
  • Applications technologies
  • Channels & integrated supply
  • Services

♦ Relentless focus on execution
  • Pricing & contracting
  • Energy management
  • Productivity
  • Operations excellence

Sustainable growth business model

Applications Technology Customer Value

Growth

Return on Capital

Commercial Terms Capture Value

Efficient/Reliable Low Cost Supplier
NAIG Sales

2004 Sales

NAIG End-Markets

2004 Growth (YOY)

<table>
<thead>
<tr>
<th>Market</th>
<th>NAIG Sales</th>
<th>IP Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Mfg.</td>
<td>4%</td>
<td>4%</td>
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<tr>
<td>Energy (ex. NG)</td>
<td>12%</td>
<td>2%</td>
</tr>
<tr>
<td>Metals</td>
<td>14%</td>
<td>9%</td>
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<tr>
<td>Chemicals</td>
<td>10%</td>
<td>7%</td>
</tr>
<tr>
<td>Food &amp; Bev.</td>
<td>4%</td>
<td>2%</td>
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</table>

Sales growing significantly faster than our end markets

1) Federal Reserve Industrial Production Dec 2004
Unrivalled North American Network

Onsite and Bulk Gases
- 300 production plants
- 8000 customer locations
- 1500 distribution vehicles
- 11 pipeline enclaves

Packaged and Specialty Gases
- 400 branches
- >300,000 customers
- 280 independent distributors
Hydrogen for Refineries

- Low sulfur fuel regulations
- Strong demand for gasoline and diesel
- Heavy crude upgrading
- Outsourcing hydrogen supply
- Upgrading hydrogen production technology
- Canadian synthetic crude
  - Upgrading bitumen
  - Refining

Sulfur Fuel Specifications

<table>
<thead>
<tr>
<th></th>
<th>Gasoline</th>
<th>On-Road Diesel</th>
<th>Off-Road Diesel</th>
<th>Locomotive &amp; Marine</th>
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<tr>
<td>2004</td>
<td>120ppm</td>
<td>500ppm</td>
<td>500ppm</td>
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<td>2005</td>
<td>30ppm</td>
<td>500ppm</td>
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<td>2006</td>
<td></td>
<td>15ppm</td>
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<td>2007</td>
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<td>2011</td>
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<tr>
<td>2012</td>
<td></td>
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</tbody>
</table>

Strong growth in North America
Gulf Coast Hydrogen System

Well positioned for customer growth

Avg. Daily Volume (MMSCFD)


23% CAGR

TEXAS
- HOUSTON
- LCR
- Valero
- DEER PARK
- BP Amoco
- Valero
- TEXAS CITY
- GALVESTON

LOUISIANA
- MOTIVA
- PORT ARTHUR
- BAYTOWN
- MONT BELVIEU
- LACASSINE
- BATON ROUGE
- GEISMAR
- CITGO
- CONOCO
- EXXONMOBIL
- Valero
- ExxonMobil
- Motiva
- Citgo
- Conoco
- EXXONMOBIL

NEW HYDROGEN PRODUCTION 2004

HYDROGEN PIPELINE
REFINERIES
HYDROGEN PRODUCTION
NEW HYDROGEN PRODUCTION 2004


800
600
400
200
0
**North American Natural Gas Market**

- **Wells**
- **Demand**
- **Well Productivity**

**Praxair Position**
- N2 and CO2 for oil & gas well fracturing
- CO2 pumping services
- Enhanced oil recovery
- Strong supply positions
- Experienced organization

**Significant growth opportunity**

*Includes JV sales*
## Applications Technology

### COMBUSTION
- Steel
- Glass
- Cement
- Refining

### PROCESS INDUSTRIES
- Environmental
  - O2 for wastewater treatment
  - VOC reduction
- Pharma/biotech
  - Low temperature refrigeration
  - Reactor cooling

### FOOD PROCESSING
- Food freezing
- Food chilling
- Fruit & vegetable disinfection
- Turn-key offerings
  - Gases, equipment, and installation
  - Testing and system selection

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Customer value drives growth for Praxair
Only National Integrated Supplier

**Production**
- NAIG
  - Onsite & Liquid Gases

**Distribution**
- Praxair Distribution + Independent distributors
  - Filling & Cylinder Distribution

- Eyes and ears in local markets create sales leads
- National network with Praxair Distribution and independent distributors
- Full range supply integration with key accounts
- Grow customers from cylinders to bulk to onsite

Local presence and cross-selling drive growth
Services

Growth Strategy
- Extend industrial gas business
- Focus on growth segments
- Enhance customer relationships

Service Businesses
- Refining/energy industry services
  - Refinery productivity & asset integrity
  - Oil & gas pipeline integrity assessment
  - Gas station tank integrity assessment
- Magnetic resonance imaging (MRI) helium services
- Cryogenic trailer services

Value added services that extend our core business
Pricing & Contracting

Distribution Method (Praxair, Inc.)

- **On-Site**: 25%
- **Liquid**: 29%
- **Packaged Gases**: 33%
- **Other**: 13%

Cost Pass Through to Customer

- **Hydrogen**:
  - 100% Nat Gas pass through

- **Atmospheric Gases**
  - **Onsite**
    - Pass through - 60 day lag
  - **Liquid**
    - Variety of escalation mechanisms
    - Surcharges

Contracting model drive returns
Increasing Productivity Gains

Sources of Cost Savings

- Leverage procurement
- Drive operations efficiency
  - Per unit power consumption
  - Volume/trip
  - On-stream reliability
- Utilize six sigma
  - Operations
  - Business processes
  - Customer interface

Six Sigma # of projects and % of workforce trained

Accelerating productivity initiatives using Six Sigma
Praxair – North American Industrial Gases

- Strong, sustainable, organic growth
- Diverse end markets and applications technology
- High quality customer base
- Only national integrated supplier
- Productivity and operations excellence
- Capital and pricing discipline
- High returns and profitability
Principles of Sustainability

**Governance and Integrity**
Foster a culture of integrity and accountability throughout the company through rigorous compliance with all laws, and by establishing and following effective corporate governance practices.

**Customer Commitment**
Continuously develop new products and applications that help our customers improve their productivity, energy efficiency and environmental performance. Provide the highest levels of service, reliability and quality to our customers.

**Environmental Responsibility**
Continue to improve the efficiency of energy consumption. Reduce the intensity\(^1\) of air emissions, including greenhouse gases.

**Employee Safety and Development**
Maintain a safe work environment with a goal of zero accidents. Provide training and career opportunities that allow employees to develop to their fullest potential. Increase the diversity of our workforce so that it is more representative of the communities in which we operate.

**Community Support**
Help to improve the welfare and future of the communities in which we operate by sharing our knowledge, expertise and resources related to environmental protection, and community health, safety and security.

**Financial Performance**
Continuously improve our financial performance and provide attractive returns to our shareholders. Generate operating cash flow to reinvest in business growth and pay dividends.

\(^1\)Intensity is per-unit-of-production measure